

Abstract of the Disclosure

A micro channel unit having a shape designed to reduce a pressure drop when fluid passes through a connecting channel portion is provided. The micro channel unit includes a micro channel with a width of micrometer dimensions through which liquid flows. The micro channel includes a plurality of straight channel portions and connecting channel portions that connect each pair of adjacent straight channel portions. The connecting channel portions are wider than the straight channel portions connected by the connecting channel portions. The use of the micro channel unit can reduce the pressure drop when fluid passes through the connecting channel portions, thereby reducing the amount of power required to drive the fluid flow and further enabling miniaturization of microfluidic devices such as pumps and peripheral devices.